



STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

File

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May 2, 1988

Mr. Larry Sowers
Crystal Peak Minerals Corporation
P O Box 100
Milford, Utah 84751

Dear Mr. Sowers:

RE: Final Approval Amendment Mining and Reclamation Plan, Crystal Peak Minerals Corporation, Sevier Dry Lake Project, M/027/008, Millard County, Utah

The Board of Oil, Gas and Mining has reviewed and approved your surety request for the amount of \$53,000.00. At this time, based on Board approval of the bond, the Division grants final approval of the plan amendment for the Sevier Dry Lake Project in Milford County, Utah.

Please be informed that Mr. David Wham has moved to another position with the State. Mr. Wayne Hedberg will be replacing Mr. Wham as lead on your permit.

Please contact either Wayne or myself if you have any further questions.

Sincerely,

Lowell P. Braxton

Lowell P. Braxton
Administrator
Development and Reclamation Program

re
cc: W. Hedberg

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ATTACHMENT

Mining and Reclamation Plan Summary
Crystal Peak Minerals Corporation
Sevier Dry Lake Project
M/027/008-87(1)
March 31, 1988

Planned construction, all within the meander line of the lake, includes 12.8 miles of new clay dikes, approximately 15.0 miles of collection ditch, and a ten acre pilot pond system. Operations will consist of pumping 20,000 acre feet of lake brines into the new pond system and operation of the smaller pilot pond circuit. Dike construction under this amendment will enclose an additional 7,000 acres of lake surface. Including the 3,000 acres enclosed in 1987, this will bring the total pond area to nearly 10,000 acres. Of the 12.8 miles of new dike to be built in 1988, 3.1 miles will be interior dike in the 1987 area and 9.7 miles will frame the new ponds.

During Operations:

1. The proposed construction will disturb approximately 53 acres of state and federal land. Dikes will be constructed by employing draglines working on large wooden mats excavating lake sediments immediately adjacent to the dike alignment. The dikes will range from five to eight feet in height, depending on the contour. The base of the dikes would typically be a ratio of 2.5 X the height.
2. The brine collection ditch will be extended northward as the lake water recedes. At its current rate of decline, the lake should be essentially dry by the fall of 1988. Initially, the brine collection ditch will be dug to a depth of twelve feet with an anticipated width of twelve feet. The ditch will be excavated with a dragline operating in much the same manner as in the dike construction.

Following Operations:

Eventual reclamation of the dikes and ditches on the lake bed will be accomplished by deliberate flooding using existing pumps and brine collection systems. The evaporation pond complex will be sequentially flooded using the existing topographic features. The effect of the flooding will be to flatten dikes and fill adjacent trenches.

The estimated costs for the proposed action in 1988 dollars are:

(1)	Pump rehabilitation and pump maintenance @ 25% of fuel costs	3,500
(2)	Fuel costs @ \$.70 gal @ known fuel consumption rates	14,000
(3)	Labor, vehicle and support costs @ \$20/hr @ 6 months	<u>20,000</u>
		37,500
	Contingency @ 10%	<u>3,800</u>
	Subtotal	41,300

The above cost estimate is in substitution for all previous estimates associated with pond system reclamation. The following estimates apply to previously approved reclamation costs for project works not sited on the lake bed (1987 and 1988 Mining Plans):

1)	Borrow Area, Grade and Contour*	1,100
2)	Borrow Area, Revegetate*	6,800
3)	Water Well Plugging*	5,000
4)	Campsite Reclamation	<u>3,500</u>
		16,400
	Contingency @ 10%	<u>1,600</u>
		18,000

* Less reclamation work completed and awaiting site inspection by the State	
Subtotal	<u>8,800</u>
	9,200

Combined Reclamation Surety Required for CPMC

1987 Construction	9,200
1988 - 1990 Construction	<u>41,300</u>
Total 1988 Dollars	50,500
Total 1990 Dollars(*)	52,900

* Escalation through 1990 @ 2.3%/yr

The total amount of reclamation bonding thus required is \$52,900. This amount is sufficient to ensure adequate reclamation for permitted work to date